## Procedure to activate air sample collection:

The Trace Atmospheric Gas Analyzer (TAGA) is being used to screen specific areas for target contaminants that are affiliated with the aftermath of Hurricane Harvey.

If the TAGA monitoring values exceed the Texas Commission on Environmental Quality (TCEQ) Air Monitoring Comparison Values (AMCV) Short Term benchmarks, and all readings exceed the AMCV benchmarks over a 5 minute monitoring interval, then an **Area Specific Evaluation** is warranted. If there are multiple exceedances identified by the TAGA over the 5 minute monitoring interval, but are not continuous exceedances, then the TAGA will attempt to isolate the source of the exceedances. Hand held monitors can also be employed to further isolate the area of contaminant exceedances. If exceedances are intermittent, this information will be noted and monitoring will continue. If the exceedances are continuous, then an **Area Specific Evaluation** may be warranted. Refer to division supervisor in coordination with EU to determine AREA specific evaluation.

## **Area Specific Evaluation:**

If the TAGA monitoring identifies an elevated contaminant, as defined by exceeding the established benchmarks, further evaluation of the suspected source is warranted. Around the detected contamination, personnel will be deployed to the facility to conduct assessment with PID and FLIR cameras.

## Pollutants to be detected at the low ppb detection limit:

benzene				
ethylbenzene				
m/p-xylene				
methyl tert-butyl ether				
o-xylene				
toluene				
vinyl chloride				
Carbon monoxide				
Sulfur dioxide				
Hydrogen sulfide				
NOx				
VOCs				
1,3 Butadiene				

## Plan: Monitor Force Majeure refineries in the Houston and Beaumont areas:

Day	Date	City	Facilities	Miles
Thursday	9/14/2017	Deer Park	Shell Deer Park Refinery	7.2
		Deer Park	Shell Deer Park Chemical Plant	
		Deer Park	Vopak Deer Park	

9/15/2017	Sweeny	Phillips 66	70
	Point	Formosa Plastics	70
	Comfort		
	Victoria	Invista Victoria	31
9/16/2017	Houston	Back to Houston	132
	Baytown	Exxon Mobil Baytown Refinery	26
	Baytown	Exxon Mobil Baytown Olefins Plant	
9/17/2017	Texas City	Marathon Texas City	31
	Texas City	Blanchard Refinery	
	Texas City	Valero Texas City	
9/18/2017	Port Arthur	Flint Hills Port Arthur	100
	Port Arthur	Motiva	
	Port Arthur	Total	
	Port Arthur	Valero Premcor	
	Port Neches	Shell Pipeline - Crude Product (RN103017521)	
9/19/2017			22
	Beaumont		
	Beaumont	ExxonMobil Beamont Refinery	
	Beaumont	ExxonMobil Beaumont Chemical Plant	
	Beaumont	Nearby Tank Farms?	
9/20/2017	Beaumont	Invista Orange	30
		Back to Houston	85
	9/16/2017  9/17/2017  9/18/2017  9/19/2017	Point Comfort Victoria  9/16/2017 Houston Baytown Baytown  9/17/2017 Texas City Texas City Texas City Texas City  9/18/2017 Port Arthur Port Arthur Port Arthur Port Arthur Port Arthur Beaumont Beaumont Beaumont Beaumont Beaumont Beaumont Beaumont	Point Comfort Victoria Invista Victoria  9/16/2017 Houston Back to Houston Baytown Exxon Mobil Baytown Refinery Baytown Exxon Mobil Baytown Chemical Plant Baytown Exxon Mobil Baytown Olefins Plant  9/17/2017 Texas City Marathon Texas City Texas City Blanchard Refinery Texas City Valero Texas City  9/18/2017 Port Arthur Flint Hills Port Arthur Port Arthur Motiva Port Arthur Total Port Arthur Valero Premcor Port Neches Shell Pipeline - Crude Product (RN103017521)  9/19/2017 Beaumont ExxonMobil Beamont Polyethylene Beaumont ExxonMobil Beamont Refinery Beaumont ExxonMobil Beamont Colonial Storage Beaumont ExxonMobil Beaumont Chemical Plant Beaumont Nearby Tank Farms?